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PROCEEDINGS.

SIXTH ANNUAL SESSION,

HELD AT HARTFORD, JULY, 1874.

AMERICAN PHILOLOGICAL ASSOCIATION.

HARTFORD, CONN., July 14th, 1874.

The Sixth Annual Session was called to order at 3 o'clock P. M., in the hall of the Public High School, by the President, Professor Francis A. March, of Lafayette College, Easton, Penn.

Addresses of welcome were made by the Rev. Professor William Thompson, D.D., of Hartford, chairman of the Committee on Entertainment, and the Hon. Joseph H. Sprague, mayor of the city, chairman of the Local Committee, to which the President replied.

The Secretary presented his report, announcing that the persons whose names follow had been elected members of the Association:

Professor Stephen G. Barnes, Iowa College, Grinnell, Iowa; Mr. Thomas Davidson, St. Louis, Mo.; Mr. A. Eiswald, Savannah, Ga.; Professor John L. Johnson, University of Mississippi, Oxford, Miss.; Professor Joseph Milliken, Ohio Agricultural and Mechanical College, Columbus, Ohio; Professor E. C. Mitchell, Baptist Theological Seminary, Chicago, Ill.; Professor Philip Schaff, Union Theological Seminary, New York City; Mr. Edward F. Stewart, Easton, Penn.; President James C. Welling, Columbian University, Washington, D. C.; Professor John Williams White, Baldwin University, Berea, Ohio.

The Secretary also reported that M. Abel Hovelague, of Paris, had presented to the Association copies of several of his philological publications.

On motion, Professor William F. Allen and Mr. Charles J. Buckingham were appointed auditors of the Treasurer's report.

On motion, it was

Resolved, That the Treasurer be requested to place fifty copies of the volume of Transactions recently published at the disposal of the President, for distribution to contributors to the funds of the Local Committee at Easton, Penn.

Professor Charles H. Brigham, of Ann Arbor, Mich., exhibited an Ethiopic manuscript.

This manuscript is apparently a collection of prayers, and probably prayers used at the altar service. It is on thin parchment, in three strips sewed together, in the whole six feet in length, and three and a half inches in breadth. The script is partly in black and partly in red ink, the red lines apparently marking the responses of the attendants in the service. Three-fourths of all the Ethiopic alphabetic characters are found in the script. The execution is very careful and nice. Each strip has at its head an "illumination" rudely done. The reading is from left to right. The age of the manuscript cannot be determined; but it is probably not very old. The manuscript was found by a workman in the yard of the railway station at Jackson Junction, Michigan, in the month of November, 1873.

Professor S. S. Haldeman, of the University of Pennsylvania, Philadelphia, read a paper on "An English Vowel-mutation, present in 'cag—keg.'"

The short vowel of "fat" is rather rare in the dialects of Europe, and, when present, it is probably due to a Celtic influence. It is well established in English, where, from its affinity with *ë* of "ebb," the two present more than two hundred examples of interchange, when archaic and local forms are enumerated. Among these are ambassador and embassy (where *am-* is deemed to be the more correct), annual and perennial, arrant and errant, assay and essay, bank and bench, brant and Brent, canal and kennel, catsup and ketchup, charity and cherish, drag and dredge, frantic and frenetic, hackle and heckle, tarras and terrace, thrash and thresh, wrack and wreck, wrastle and wrestle.

Mr. W. W. Fowler, of Durham, Conn., read a paper on "Paradoxes in Language."

Words standing for white (color), light, and heat, in the Indo-Germanic languages, are from roots signifying to shine; on the other hand, many words standing for black (color), darkness, and cold, are from the same class of roots; for instance:

English *black*, *blank* (white), and *bleach*, from root *bha*, "to shine"; English *swarthy*, German *schwarz*, from root *swar*, "to shine."

Latin *furvus*, "dark, black," *balivus*, "dark, swarthy," from root *bha*, "to shine"; Latin *candidus*, "white," from root *skand*, "to shine." *Ater*, "black," is probably from root *ath*, "to burn" (cf. Sanskrit *athara*, and Persian, *atar* "fire").

Greek *αἰθρῶς*, "black," from root *idh*, *aið*, "to burn," "to glow"; *λευκός*, "white," from root *ruk*, *luk*, "to shine."

Sanskrit *kṛshṇa*, and Lithuanian *karsna*, "black," from root *kar*, "to glow," "to burn."

This paradox is explained by the use of the same or similar words to express the primary and the secondary effects of the sun and fire; the primary effects being light, brightness, whiteness; the secondary effects, a change in the color of substances—blackening (or darkening). Words meaning dark (color) or black, may be translated by the terms "sun-burned" or (simply) "burned"; a black color as well as a brown color is a burn-color. The English *swarthy* is "sunburned"; so originally was the German *schwarz*. The words *ink* (*encaustum*, "burned in"),

coal (from the root *gvar*, "to glow"), and *soot* (from the root *su*, *sva*, "to glow") illustrate the process by which many words standing for dark colors, arose from roots signifying "to shine." The principal color-names (generic as well as specific) being derived from radicals signifying "to shine"—in other words, the sunlight being the main source of color—we may come to know how it was that the same color-names stand for different colors in different languages, e. g. : Latin *flavus*, "yellow," corresponds to Teutonic *blava*, "blue"; or for different colors in the same language, e. g. : Greek, γλαυκός, "blue," "green," and "gray."

Again, the words, *glow*, *gleam*, *glimmer*, as well as *gloom* and *gloaming* (the twilight), come from root *ghar*, "to shine." *Gloom* appears to mean, first, the flashes of lightning from a thunder-cloud, secondly, the lowering darkness of a thunder-cloud. *Gloaming* is, properly, light by flashes, intermittent light, as at twilight, particularly in high latitudes. *Morning* (*morgen*) and *murky* convey opposite ideas, the former of light, the latter of darkness, but the primitive meaning of both referred to light, i. e., twinkling or intermittent light. *Day*, *dawn*, and *dazzle*, as well as *dim*, and perhaps *dusky*, are from the root *da*, "to shine"—a root which appears as the basis of a large number of Indo-Germanic words referring to the different phenomena of the visible heavens; *day*, *dawn*, and *dazzle* describe the brightness, while *dim* and *dusky* describe modified or lessened brightness of the sky, light being the fundamental idea in both cases. *Blind*, from root *bha*, to shine, expresses *blended*, mixed light, when things are not clear.

Certain words, expressing heat and cold, are alike derived from roots which signify to burn; compare Greek αἶθω, "to burn," αἶθωρ, "burning," with αἶθριος, "cold," from root *idh*, αἶθ, "to glow," "to burn." Sanskrit *çyâ*, *çyâ-yate*, "to burn," and "to freeze"; *çîta*, "cold," and Latin *ci-nis*, "ashes"; German *hei-ss* and English *heat*; from root, *kî*, "to burn." Sanskrit *plush*, *ploshati*, "to burn"; Latin *pruina*, "a glowing coal," *pru-ire*, "to burn," "to itch"; Gothic *friusa*, Old Norse *frostr*, English *frost*, Old High German *frea-son*, English *freeze* (cf. German *frostbrand*), from root *prus*, "to burn." Greek *καίω*, and *καίψα*, "to burn," and "to be cold." Latin *uro*, *urere*, "to burn," and "to freeze" (so used by Cicero, Virgil, Pliny, and many other classic authors), from root *us*, "to burn."

All the cases cited in this paper may be explained by showing that the same or similar names are often given to cause and effect, or to two similar or apparently similar effects from different causes, or to different effects from the same cause.

Professor Fisk P. Brewer, of the University of North Carolina, Chapel Hill, N. C., described a fragmentary Manuscript of mediæval Latin preserved in the Library of the University of South Carolina, and exhibited a copy of it.

It is a single leaf of parchment, bound up with a folio edition of Pliny printed at Treviso, near Venice, in 1479. It is written with two columns to the page, in the style prevalent about 1450. The letter *e* is used for the diphthongs *æ* and *œ*; for *nihil* is written *nichil*; for *distrabant*, *distrant*; for *vehiculum*, *veiculum*; for *mitto*, *micto*; for *missus*, sometimes *mizus*; *cura* and *curia* are interchanged; as also *publicatio* and *publicatio*, *estimatio* and *extimatio*.

The manuscript is a leaf from the middle of a series of statutes of a king who

refers to himself by the exclusively regal title of *nostra celsitudo*, and alludes to his own previous *nova statuta*. In the present edicts he orders that market magistrates shall no longer compel citizens to purchase salt in greater quantity than they desire, nor restrict the places where salt and other necessities of life may be sold. He prohibits officers of the provinces in general, *justitiiarii*, *camerarii*, and others, from accepting loans and gifts from the provincials, as had been customary under a variety of pretexts. He further commands local authorities to respond promptly to requisitions of procurators for help in preparing camps and buildings and in planting and cultivating vineyards, and, in case of their delay, directs the procurators to have the necessary castle-repairs effected, with the assurance that their expenses shall be repaid from the treasury. The practice of impressing men and animals into the public service without proper compensation, is prohibited. The hire of a man and a horse is fixed at one *tar*, and it is ordered that in the purchase of horses, or the death of hired animals, the value shall be estimated by three or four good and worthy men.

The following words of late Latin are found in this document: *fundicus* connected with our *funds*, meaning a "bourse" or "market place"; *magistri fundicarii*, "market officers"; *fundicare*, "to pay the market tax"; *bajulus* (bailiff), the title of a magistrate; *azarium* (French acier), "steel."

A recess was taken till 8 o'clock.

EVENING SESSION.

The Association resumed its session, Dr. J. Hammond Trumbull, of Hartford, Conn., Vice-President, in the chair.

The Secretary reported the election of new members as follow:

Rev. W. L. Gage, Hartford, Conn.; Professor G. S. Hall, Antioch College, Yellow Springs, O.; Rev. Charles Hammond, Principal of Munson Academy, Munson, Mass.; Professor Selah Howell, Christian Biblical Institute, Stanfordville, N. Y.; Professor John S. Lee, St. Lawrence University, Canton, N. Y.; Professor R. H. Mather, Amherst College, Amherst, Mass.; Mr. Sydney P. Pratt, Boston, Mass.; Mr. H. B. Richardson, High School, Springfield, Mass.; Professor Charles C. Shackford, Cornell University, Ithaca, N. Y.; Rev. Leopold Simonson, Hartford, Conn.; Professor William Thompson, Theological Institute of Connecticut, Hartford, Conn.; Mr. Minton Warren, High School, Waltham, Mass.; Professor James H. Worman, New York City.

Professor Francis A. March, of Lafayette College, President of the Association, delivered the Annual Address.

The study of the ancient literary monuments of the Indo-European speeches is now giving place to the study of living dialects, and of the relics of the ancestors of barbaric tribes. The more sober western leaders of the new generation are trying to ground the laws of language in physiological necessities and the facts of living dialects; the more adventurous are leaving the familiar fields of the Indo-Europeans.

A brief sketch was given of the work of the year in the study of dialects. An English Dialect society has been formed under the direction of Mr. Skeat and

the inspiration of Mr. Ellis, and is vigorously at work collecting all the living varieties of English speech, and asking our aid. With it should be put A. J. Ellis's work on "The English Dialects in Great Britain and America," forming a part of his great work on "Early English Pronunciation"; J. A. H. Murray's "Dialect of the Southern Counties of Scotland"; C. C. Robinson on "The Yorkshire Dialects"; Prince Louis Lucien Bonaparte on "The English Dialects," in the Philological Society's Proceedings; Sweet on "Danish Pronunciation"; John Winkler's "General Netherland and Frisian Dialecticon," a thousand and solid Dutch pages on the continental Low German dialects; Tobler on "The Aspirates and Tenuis in the Dialects of Switzerland," an excellent paper in Kuhn's *Zeitschrift*; Halévy on "The Dialect of the Jews of Abyssinia"; the Abbé Martin on "The Chief Aramaic Dialects"; Dr. Bleek on "Grimm's Law in South Africa"; Dr. Carter Blake on "The Dialects of Nicaragua"; Mr. Thomas on "The French of the West Indian Negroes," especially at Trinidad; Professor Hartt on "The Language of the Amazons," in our own Transactions; and, most notable of all in its kind, Professor Trumbull's "Notes on Forty Versions of the Lord's Prayer in the Algonkin Languages." The greater part of this work on dialects is done with scientific caution, and is in full accord with the best scholarship of the old school.

In phonology, we have Mr. Ellis's work, and the invention by Mr. W. H. Barlow of an instrument, called a logograph, by which the comparative force and duration of the sound made in speaking is registered.

Of the more adventurous work, mention was made of a grammar by M. Lenormant, of the speech of the primitive population of Babylonia, which is claimed to be a representative of the parent speech of the so-called Turanian or Scythian family of languages, and to be likely to play the same part in reducing the languages to order which the Sanskrit has done in the Indo-European family, and also a comparison of it with Modern Finnish dialects, by Lagus; Mr. Isaac Taylor's book on the Etruscan, trying to show that to be Finnish or at least Turanian; F. Delitsch and J. Grill on "The Relation between the Roots of the Semitic and Indo-European Speeches"; and J. Edkins on "The Relation of the Chinese to the European Roots."

There has been also good work done in the old fields. Pott's great *Lexicon of Roots* has been completed, and only awaits an index. In the Celtic speeches, especially, we have a number of new undertakings of considerable interest. Chevalier Nigra's essay on the Irish manuscript of St. Gall, and the work of Ascoli on the ancient Irish glosses of Milan, and many articles in the *Revue Celtique*, are worthy of note, while the publication of a volume of essays in English on Celtic subjects, by Whitley Stokes, and the introduction of Celtic comparisons into the fourth edition of Curtius's *Grundzuge*, show the firm and familiar establishment of Celtic studies in England and Germany. This year is marked in Scandinavia by the Icelandic Millennial and the completion of Cleasby's Icelandic Dictionary. The early English Text Society has also celebrated with rejoicings and pride the tenth year of its labors, and has finished the texts of *Pierce Plowman*, and given us a new volume of most welcome Anglo-Saxon Homilies. Then there is the establishment of the New Shakespeare Society and the commencement of scientific and other linguistic examinations of Shakespeare's plays, all apparently going on with enthusiasm.

They are interested in England also, as in this country, in reforming the

school pronunciation of Latin and Greek ; but its promoters seem to be in unreasonable haste, and speak despondingly of the real progress of the year towards the new standard. The advanced studies of women in connection with the university examinations appear a decided success, and their permanent establishment and use seem to be already accepted in England.

After a brief reference to the triumphs of philology, it was asked what the advance of philology may be expected to do for improving the estate of man ; and in answer followed discussions of a reform of English spelling ; a universal alphabet ; improvements in the structure of words, to make language more harmonious, more regular, and better suited to express scientific truth, and to aid in scientific discovery ; improvements in the methods of education, and in the selection of objects of study ; and changes in the treatment of psychology and the philosophy of history.

At the conclusion of the address, the Association stood adjourned to 9 o'clock Wednesday morning.

WEDNESDAY, JULY 15TH—MORNING SESSION.

The Association met at 9 o'clock, the President in the chair.

On motion, Mr. Alonzo Williams, of Providence, R. I., was appointed Assistant Secretary.

The Treasurer presented his report, which the Auditors certified to be correct, and it was, on motion, accepted. The receipts and expenditures of the past year were as follow:

RECEIPTS.

Balance in treasury, July 22d, 1873,.....	\$1,029.68
Fees of 20 new members,.....	100.00
Annual assessments,.....	465.00
Interest,.....	42.00
Sales of Transactions,.....	40.06
	<hr/>
	\$1,676.74

EXPENDITURES.

Printing Transactions, 1872,.....	\$638.84
" Proceedings, 1873,.....	149.10
Postage, express, stationery, and sundries,.....	43.82
Secretary's bill for postage, copying, etc.,.....	27.00
	<hr/>
	\$858.76
Balance in hands of Treasurer,.....	817.98
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	\$1,676.74

Professor W. S. Tyler, of Amherst College, Amherst, Mass., read a paper on "The Prepositions in the Homeric Poems."

The "parts of speech," as they are called by grammarians, are a classification, founded in the nature of language, but inevitably more or less artificial and

imperfect, of the different kinds of words in their relations to each other and to the sentence. The number has varied much at different times. Aristotle, in one treatise, makes three; in another, four. The Stoics made nine. Some Roman grammarians made ten, eleven, or even twelve. The same words are continually passing from one part of speech into another. Thus, by a progressive falling off of emphasis, the demonstratives in many languages (e. g. English *that*, Greek *ὅτι*, and Latin *quod*) became first relatives, and then articles or conjunctions.

The prepositions were originally and properly adverbs, few in number, scarcely a score in Greek, about the same number in Sanskrit, and but little more than that number in Latin and the modern European languages. Primitive words with monosyllabic roots, although for the most part made dissyllabic in Greek by the annexation of a final vowel, the *proper* prepositions seem originally to have expressed such essential relations as up and down, over and under, to and from, in and out, on and off, etc., etc., which, in the nature of the case, would gradually pass from mere adverbs denoting the *direction* of motion or action, into prepositions expressing the *relations* between such motions or actions and the places, persons, and things affected by them. In the Homeric Poems we see this class of words in the transition state between adverbs and prepositions, sometimes standing alone with a fully adverbial force, and even when prefixed to a noun or compounded with a verb sometimes hovering between the office and force of the adverb and the preposition. In subsequent writers, such as Sophocles, Herodotus, Xenophon, and still more in the Greek of the New Testament and the Modern Greek, there is a constant decrease of the adverbial and separate use of the prepositions, and a regular and progressive increase of their use both as prepositions governing cases of the noun and as prefixes in compound verbs. A careful examination of all the cases in which words of this class occur in specimen passages of these authors yields the following table of statistics:

	Before Substantives.	Prefixes to Verbs.	By themselves.
Iliad,	47 per cent.	34 per cent.	19 per cent.
Sophocles,	35 "	59 "	6 "
Herodotus,	47 "	53 "	0* "
Xenophon,	41 "	59 "	0 "

Of all the verbs in the specimen passages, in the Iliad about 14 per cent. are compounded with prepositions; in Sophocles, 26; in Herodotus, 32; in Xenophon, 36; in the Acts, 40; in Tricoupes (the Modern Greek historian), 43.

Parallel with this relative increase of verbs compounded with prepositions, and apparently consequent upon the continually diminishing emphasis and force of that class of words, the repetition of the same preposition, both in composition with the verb, and again before the substantive, grows more frequent. There is scarcely a trace of it in Homer or Sophocles. It is rare in Herodotus. In Xenophon, it is not unfrequent.† It is common in the New Testament.

In the Iliad, not only is the verb less frequently compounded with the preposition, but the oblique cases of the substantive occur more frequently without a preposition or any other governing word. And when the preposition does stand before the substantive, or enter into composition with the verb, it seems often to

* That is, none in the passage of several pages which I used as a specimen. There are not wanting sporadic cases of tmesis and adverbial use, e. g., ἀπὸ δ' ἔθαρε, vi. 114; μετὰ δέ, vi. 120.

† In such constructions as εἰς (or ἐμ-)βάλλειν (or βαίνειν) εἰς: ἐκβάλλειν ἔκ: συνστρατοπεδεύεσθαι σὺν, etc., etc.

retain more of its original adverbial force, or to hover between an adverb and a preposition, as in the familiar line, II. 3, 12:

τύσσον τίς τ' ἐπιλεύσσει, ὅσον τ' ἐπὶ λᾶαν ἴησιν.

Professor J. B. Sewall, of Bowdoin College, Brunswick, Me., read the second paper, on "The Distinction between the Subjunctive and Optative Modes in Greek Conditional Sentences."

In a discussion upon this subject at the last meeting of the Association, it was maintained on the one side that the difference between the Subjunctive and Optative modes in conditional sentences was only that of greater and less vividness, on the other that it was a difference in kind between supposed fact as contingent and supposed fact as merely conceived. The object of this paper is to briefly discuss this point.

If we ask how the fact of supposition is presented in the four classes of Greek conditional sentences respectively, the answer will be somewhat as follows:

1. In a conditional sentence of the first class there is a supposition relating to the actual state of the case—to reality; e. g. Dem. Phil. 1., 29, *εἰ δέ τις οἶεται . . . οὐχ ὁρθῶς ἔγνωκεν*, "if any one thinks . . . he has not judged rightly." It is a question of what really is, a supposition relating to actual fact. No implication that it is or is not reality is involved. Xen. Mem. 2, 1, 28, *ἀλλ' εἴτε τοὺς θεοὺς ἴλεως εἶναι σοὶ βούλει, θεραπεύειν τοὺς θεοὺς*, "if you wish the gods to be propitious, you must serve the gods." Do you wish, or do you not wish? It is a question of actual fact. So always. And if we should characterize a condition of the first class from the manner of its presenting the fact in supposition, we should call it a supposition relating to actual fact, or, for the sake of brevity, supposition of actual fact, generally implying nothing as to its existence in reality one way or the other, though sometimes assuming or taking it for granted.

2. In the second class, having secondary tenses of the indicative in both condition and conclusion, we have plainly a supposition implying the contrary to be the fact; e. g. Dem. Phil. 1., 1, *εἰ μὲν περὶ καινοῦ τανὸς πράγματος προνίθετο λέγειν, ἤσυχίαν ἂν ἦγον*, "if it were proposed to treat of any new subject, I would keep silence;" implying plainly that it is not proposed to treat of any new subject, and therefore he does not keep silence. Id., ib. 5, *εἰ τοίνυν ὁ Φίλιππος τότε ταύτην ἔσχε τὴν γνώμην, οὐδὲν ἂν ὦν νυνὶ πεποίηκεν ἔπραξεν*, "if then Philip at that time had entertained this opinion, he would have done none of those things which he has done;" implying that he did not entertain this opinion at that time. We may characterize a condition of this class therefore as a supposition implying the contrary to be the truth, or, for brevity, a supposition of contrary fact.

3. Passing the third class for the moment, we have in the fourth class *εἰ* with the optative in the condition, and the optative with *ἂν* in the conclusion; e. g. Dem. Phil. 1., 25, *εἰ γὰρ ἔροιστό τις ὑμᾶς, εἰρήνην ἄγετε, ὧ ἄνδρες Ἀθηναῖοι; μὴ Δί' οὐχ ἡμεῖς γε, εἰποῖτ' ἂν*, "for if any one should ask you, 'Are you at peace, O Athenians'? 'No, by Zeus, we are not,' you would say." The fact of supposition is here put forward as merely hypothetical—a fact of conception, without reference or implication in any way or kind as regards actual fact. It is not future any farther than a supposition of fact not a reality now nor in the past must be in the future if at all. The verbs in the condition and the conclusion are both in the aorist, which means that the Greeks eliminated the facts of the supposition

from the element of time and held them in the mind as mere conceptions, never having been, not now being, never to be, in reality, so far as this assertion is concerned. Plato, *Phaedo* 67, κ, *εἰ φοβοῖντο καὶ ἀγανακτοῖεν, οὐ πολλὰ ἂν ἀλογία εἴη*; "if they should fear and complain, would it not be very absurd?" Here again the fact of supposition is purely hypothetical, placed before the mind as a conception, without any reference or implication in relation to reality. So generally. The optative in the conditional sentence is the mode of possibility, that which might be, the mode of fact simply as conceived. And we may characterize a condition of the fourth class as a supposition of conceived fact.

4. We will return now to a condition of the third class, *ἐάν* with the subjunctive, etc. Plato, *Phaedo* 69, ν, *ἐκεῖσε ἐλθόντες τὸ σαφὲς εἰσήμεθα, ἐάν θεὸς ἐθέλῃ*, "when ye shall have arrived there, we shall know the truth, if God wills." The subjunctive *ἐθέλῃ* here expresses an action continuing, uncertain, and future. The continuousness arises from the tense, the futurity partly from the tense of the principal clause, and partly from the mode, which, it seems to me, we may describe as the mode of uncertainty or contingency, i. e., the mode by which the Greeks chose to represent an action as uncertain, whether in reality it was so or not. *Εἰσήμεθα* expressly declares a fact, "we shall know," but it is contingent, and the mode used to express that contingency is the subjunctive. What would be the force of the sentence if it were a conditional of the fourth class? It seems plain that the assumed fact, *ἐλθόντες ἐκεῖσε*, would be thrown into the form of a simply conceived fact of condition, "if we should arrive there," and the conclusion also, "we should know," and the present condition, now only expressing uncertainty, would become a second condition, likewise of simply conceived fact, "if God should will." That is, the sentence in the first form positively declares a fact with a condition of mere contingency; in the second, it presents both the fact and its conditions merely as conceptions. The difference, therefore, is not one of degree, more or less vividness, but of kind, mere uncertainty or contingency on the one hand and pure conception on the other. So in the following examples: Dem. Phil. 1., 29, *τοῦτ' ἂν γένηται, προσποριεῖ τὰ λοιπὰ αὐτὸ τὸ στράτευμα ἀπὸ τοῦ πολέμου*. Thucyd. 11, 39, 4, *ἣν δέ που μορὴν τινὲ προσμύξωσι, κρατήσαντές τε τινὰς ἡμῶν πάντας αὐχοῦσιν ἀπεῶσθαι*. The latter is a general supposition, yet well illustrates the nature of the subjunctive as the mode of uncertainty or contingency.

The conclusion reached is, that the subjunctive in conditional sentences differs from the optative in that it is a form to represent the fact as uncertain or contingent, while the optative is a form to represent it as merely conceived; and that the four classes of conditional sentences may properly, and with sufficient accuracy, be thus described: the first, *εἰ* with the primary tense of the indicative, as a supposition relating to actual fact; the second, *εἰ* with the secondary tense of the indicative, as a supposition relating to contrary fact, or implying that the contrary is the truth; the third, *ἐάν* with the subjunctive, supposition relating to contingent fact; the fourth, *εἰ* with the optative, supposition of conceived fact.

Professor L. R. Packard, of Yale College, New Haven, Conn., read a paper on "Homer's *Odyssey*, Book X., vv. 81-86."

The difficulty of the passage was illustrated by a review of the various explanations, ancient and modern, that have been suggested. The first line, and half of the second, it was shown, cannot be positively and precisely explained from the want of sufficient data. Only with regard to *τηλέπυλον* it was urged that it

cannot mean "having high or wide gates," as some take it, but must mean "having gates far apart," a distance, either—as Nitzsch thinks—measured on the diameter, and so "long-streeted," or perhaps more probably measured on the circumference, and so "large in circuit," a description of the greatness of the city in Epic style.

It was pointed out in regard to the rest of the passage that previous explanations generally involve some assumption for which there is no ground here or elsewhere in Homer. Thus Nitzsch assumes, from the mention of two kinds of cattle in line 85, that cows are driven out earliest in the morning, and sheep come home latest at evening. So J. F. Lauer assumes that this meeting takes place at evening, and that the sheep-herd coming in greets the cow-herd going forth.

The view maintained in the paper assumed only this, as naturally in the mind of poet and hearers, that all kinds of flocks naturally spend only the day in pasture, and the night under the protection of the herdsman's home. This is the representation elsewhere in Homer, e. g., in regard to the Cyclops (*Od.* 9 *passim*), and to Eumaeus, (*Od.* 14, 13–22; 16, 3). This familiar idea is applied to the Laestrygonian country, without thought that the absence of any night there makes it inappropriate, and it explains the mention of the two kinds of flocks in line 85. A man who could dispense with sleep could be in the pasture through the twenty-four hours, but either kind of animal would naturally be at home for half of that time.

In the last line most explanations have translated ἐγγύς "near to one another." The word occurs some forty-five times in Homer, and in thirty-three cases in such a way (either because the subject is singular, or because some local genitive depends upon ἐγγύς) that it cannot mean "near to one another" but only "near" to something else. Of the other eleven cases (not counting the line under discussion), which all resemble this in plurality of subject and absence of dependent genitive, only one admits the meaning "near to one another." The usual word for reciprocal nearness is πλῆσιος. The plain inference is, that the line means "for near (to the home of the Laestrygonians) are the paths of day and night." The following journey is all near to this place, and all in a region of marvels, which is such because of its nearness to the western home of the sun (cf. *Od.* 10, 130; 12, 3 f., 166, 175 f., 201, 261, 284–93). The whole story is probably a natural exaggeration of the stories of shorter nights in higher latitudes brought home by sailors, which seems to be localized near sunset, and described without any thought of logical consistence in the parts of the fable.

Professor M. L. D'Ooge, of the University of Michigan, Ann Arbor, Mich., read the last paper of the afternoon, on "The Documents in Demosthenes on the Crown."

Professor Lipsius, of Leipzig, called my attention, not long since, to a new argument against the genuineness of the documents in the oration of Demosthenes on the Crown, which was first stated in its general bearing by Prof. Sanppe, of Göttingen.

1. Stichometric enumerations are found not only in Σ , but also in the MSS. of other families, as in Venetus F and in Bavaricus, and these enumerations correspond so closely as to warrant the inference that they have all a common source in one and the same original codex.

2. It appears that the count of these ancient στίχοι is in proportion to the length of the speeches and the number of the lines in our editions: e. g., in

Orat. pro Halon., 345 $\sigma\tau\acute{\iota}\chi\omicron\iota$ = 326 lines in Reiske; in Orat. de Cherson., 590 $\sigma\tau\acute{\iota}\chi\omicron\iota$ = 559 lines R.; so in

- | | | | | | | | |
|-----|----------|-----|---------------|---|-----|-------|-----|
| I. | Olynth., | 265 | $\sigma\tau.$ | = | 238 | lines | R.; |
| II. | Olynth., | 295 | " | = | 272 | " | " |
| II. | Phil., | 290 | " | = | 266 | " | " |

From this comparison we deduce a ratio of 30 $\sigma\tau\acute{\iota}\chi\omicron\iota$ to 29 lines (= 1 page) of Reiske.

3. Applying this ratio to the Orat. de Corona we obtain the following: The number of $\sigma\tau\acute{\iota}\chi\omicron\iota$ is given at the close of Σ as 2768, which would equal—according to our ratio—92 pages of Reiske; but with Reiske the oration has 107 pages, and this difference of 15 pages corresponds almost exactly to the 450 lines which are taken up by the documents in Reiske. Or, to state it differently, according to the ratio of 29 : 30, the oration, inclusive of the documents, should contain about 3200 $\sigma\tau\acute{\iota}\chi\omicron\iota$, whereas the number contained is stated to be only 2768. That the documents are found in Σ does not, of course, invalidate this argument, since it applies only to the original root-codex, from which this enumeration is supposed to originate. Nor would this result be materially different if we suppose with Blass, in Rhein. Museum, 24, that these $\sigma\tau\acute{\iota}\chi\omicron\iota$ are not lines, but oratorical periods— $\kappa\acute{\omega}\lambda\alpha$ —since according to the figures above given, these $\kappa\acute{\omega}\lambda\alpha$, if not individually of about the same length, must yet collectively have occupied about the same ground.

An invitation from Professor Brocklesby, acting President of Trinity College, to visit the College buildings and grounds, was accepted with thanks.

An invitation from the Faculty of the University of Mississippi, to hold the next meeting of the Association at Oxford, Miss., was referred to a committee (to be raised) on the time and the place of the next meeting.

The Association took a recess until 2½ o'clock P. M.

AFTERNOON SESSION.

The first paper of the afternoon was read by Professor Charles Short, of Columbia College, New York, on "The History of the Vulgate, and the Characteristics of its Latinity."

The author traced the history of the Latin version from its probable origin in North Africa in the second century to its revision by St. Jerome in the fourth, its acknowledgment by Gregory the Great in the sixth, and its formal revision, sanction, and adoption by the Roman Sec in the sixteenth century. He then proceeded to give the results of a minute critical examination of about one-fourth of the Gospel of St. Matthew, using Dr. Tisdendorf's edition of the *Codex Amiatinus* of the sixth century, the purest form of St. Jerome's revision now known to us.

These results were given under the following heads and illustrated in most cases by all the examples occurring in the portion of St. Matthew above designated.

(1) The order of the original is exactly preserved by the Vulgate in most instances, with here and there an unavoidable departure, and sometimes a departure that might easily have been avoided.

- (2) Many of its renderings are very close in sense or form or both.
- (3) Certain of its renderings are more or less inexact or faulty.
- (4) Many of its renderings are in strict accordance with the Latin idiom, even when the Latin idiom differs from the Greek.
- (5) It presents instances of judicious freedom in idiomatic translation.
- (6) It not unfrequently renders the Greek literally in violation of the Latin idiom.
- (7) Some of its words, forms, and phrases are in very unusual, but still authorized Latin.
- (8) In its use of moods the Vulgate commonly observes the nicety of classic usage; but the infinitive is sometimes employed to denote purpose, as in Latin poetry; the subjunctive is in a few instances used without apparent reason after *quoniam* and *quia*; and in one case we have the indicative employed in an indirect question, as in the early and the late Latin poets.
- (9) In the use of particles the Vulgate commonly conforms to classic rule even in delicate points, but some of its uses of particles are unusual and others are unexampled.

It is the author's purpose to examine in the same manner a part of the Acts and the Epistles, this portion of the New Testament, as is supposed, not having been revised at all by St. Jerome or only very cursorily, and to compare the results of such examination with the foregoing.

Professor W. D. Whitney, of Yale College, New Haven, Conn., read a paper on "The Proportional Elements of English Utterance."

If we are rightly to estimate the phonetic character of a language, it is necessary for us to know not only the sounds which compose its spoken alphabet, but also the comparative frequency of their occurrence. In order to determine this latter for the English language (according to my own natural pronunciation of it), I have made a selection of ten passages, five in prose and five in poetry, from as many different authors, and analyzed and enumerated the sounds occurring in them, until the number of 1000 sounds was reached in each; then, adding the ten numbers for each sound together, I obtained the proportional rate of occurrence of each in 10,000 sounds; which probably gives a fairly approximative average for the language in general.

The ten selected passages were as follows: 1. from Shakespeare's "Julius Cæsar," the beginning of Antony's speech over the body of Cæsar, 288 words; 2. from Milton's "Paradise Lost," the beginning, 274 words; 3. from Gray's "Elegy," the beginning, 272 words; 4. from Bryant's "Thanatopsis," the beginning, 283 words; 5. from Tennyson's "In Memoriam," of section lxxxiii., 284 words; 6. from King James's Bible version, of Psalm xxvii., 319 words; 7. from Dr. Johnson's "Rasselas," the beginning, 263 words; 8. from Goldsmith's "Vicar of Wakefield," the beginning, 269 words; 9. from Carlyle's "Sartor Resartus," book ii., ch. 8, eighth paragraph, 258 words; 10. from Macaulay's essay on Milton, part of the passage on the Puritans, 236 words.

The main results are given in the following table, which is so arranged that it may serve as a scale of frequency either for the whole alphabet or for the vowel and consonantal systems taken separately. The figures, if read without the decimal point, give the whole number of occurrences of each sound in the 10,000 sounds; the decimal point converts them into expressions of percentage. And as it is of interest to note the limits of variation in the rate of occurrence of each sound, there is added a column of *minima* and *maxima*, or of the least and the

greatest number of occurrences found in any of the single passages of 1000 sounds; these also are converted into percentages by the decimal point.

SCALE AND RATE OF FREQUENCY OF ENGLISH SOUNDS.

Consonants.	Vowels.	Per cent.		Min. and Max.	
r		7.44		5.4	— 9.3
n		6.76		5.7	— 7.9
t		5.93		4.6	— 8.9
	ɪ		5.90	4.7	— 7.4
	ə		5.66	4.3	— 6.9
d		4.94		4.0	— 5.8
s		4.69		3.7	— 5.8
l		3.84		2.5	— 6.2
dh		3.83		2.4	— 5.1
	ʒ		3.34	2.6	— 4.7
	æ		3.32	2.4	— 4.0
m		3.06		1.8	— 4.1
z		2.92		2.2	— 4.3
	ɪ		2.80	1.5	— 4.8
	ʒ		2.59	1.8	— 4.2
v		2.37		1.4	— 3.5
h		2.34		1.2	— 3.1
w		2.31		1.6	— 3.0
k		2.17		1.1	— 3.1
f		2.06		1.2	— 2.8
	ū		2.00	1.1	— 3.5
	ai		1.91	.9	— 4.8
	æ		1.85	.9	— 2.5
	ō		1.76	.9	— 2.6
p		1.71		1.0	— 2.6
b		1.64		1.0	— 3.4
	ē		1.61	.5	— 2.7
	ā		1.54	.8	— 2.2
sh		.86		.1	— 1.8
	au		.83	.3	— 1.3
g		.79		.3	— 1.6
ng		.79		.1	— 1.4
y		.66		.3	— 1.1
th		.58		.2	— 1.0
	u		.56	.1	— 1.2
ch		.53		.1	— 1.2
	æ		.47	.0	— 1.4
j		.47		.1	— .9
	ū		.44	.2	— 1.2
	l		.35	.1	— .7
	n		.16	.0	— .3
	ai		.12	.0	— .2
	ō		.08	.0	— .2
zh		.02		.0	— .1
		62.71	37.29		

In the scheme of representation here used, *a* denotes the open or "Italian" *a* of *far*; *ä*, the sound in *what*, *not* ("short *o*"); *ɐ*, that in *all*, *awe*; *æ*, that in *fat*, *man* ("short *a*"); *ɛ*, that in *care*, *bear* (in my mouth, a lengthened *e*, with transition-sound to following *r*); *ẽ*, the "short *e*" of *met*, *pen*; *ē*, the sound in *they*, *mate* ("long *a*"), a somewhat closer *e*-sound than *ẽ*, and having a vanish of *i* (*ee*); *ĩ*, the "short *i*" of *pin*; *ī*, the sound in *pique*, *meet* ("long *e*"); *ō*, the true short *o*-sound heard in New England in a few words, like *whole* and *home*; *ō̄*, the "long *o*" of *hole*, having a vanish of *u* (*oo*), as *ō̄* of *i*: *ū*, the true short *u*-sound of *pull*, *wool*; *ū̄*, the pure *oo*-sound of *rule*, *fool*; *ə*, the short "neutral vowel" sound in *but*, *son*, *blood*; *ɔ*, the corresponding long, before *r*, as in *hurt*, *heard*, *herd*, *mirth*, *world*; *ai*, the diphthongal sound in *aisle*, *isle* ("long *i*"); *au*, that in *now*, *found*; *ai*, that in *boy*, *boil*; the *l* and *n* with subscript *o*, the consonantal vowels in unaccented final syllables like *apple* and *feeble*, *reckon* and *lessen*. As for the consonants, it is only necessary to explain that *th* denotes the surd sound in *thin*, and *dh* the sonant in *then*; *ng*, the palatal (or "guttural") nasal in *singing*; *sh*, the sibilant in *she*, *sure*, *nation*; *zh*, the corresponding sonant in *azure*, *occasion*; *ch* and *j*, the surd and sonant sounds in *church* and *judge*, which are compound, and might have been better treated here as such, being analyzable into *t-sh* and *d-zh*, only with a *t* and *d* formed farther back, more palatal, than our ordinary "dental" or lingual letters; if they are distinguished, it would be necessary also to distinguish the corresponding more palatal *n* of *inch* and *hinge* (it occurs 13 times in the 10,000 sounds).

In the number of occurrences given for *a* (of *far*) are included all such cases as *chance*, *pass*, *path*, *raft*, which I pronounce with the full "Italian" sound, knowing no compromise or intermediate whatever between this sound and the flat *a* of *fat* and *man*; if those classes be uttered with a somewhat flattened vowel, as is now very usual, and even enjoined by the orthoëpists, the percentage of *a* will be reduced almost to nothing. The short neutral *ə*, as given, includes the neutralized vowels of unaccented syllables (e. g. in *woman*, *distunt*, *penal*, *nation*, *miller*, *presence*), and of enclitic words (like *the* and *a*), as judged and estimated from an ordinary reading style of utterance, neither affectedly distinct nor careless and slovenly. The percentage of *r* includes all the cases in which that letter is written; if, according to a habit which is widely prevalent both in this country and in England, the *r* be really uttered only when it has a vowel after it, the figure will be reduced to 3.74. Under *h* are counted the occurrences of that sound before the *w* and *y* sounds, as in *when* (*hwēn*) and *hue* (*hyū*), where some hold that they pronounce instead only a surd *w* and a surd *y* before the vowel: the cases like *when* number 39 in the 10,000 sounds; those like *hue*, only 4. The "long *ā*" of *use*, *pure*, *cube*, etc., is analyzed and reckoned as *yū*, my own natural pronunciation recognizing no intermediate between this and a pure *ū* (*oo*).*

The table shows that the average proportion of vowels to consonants in English is 37.3 to 62.7 (the minimum and maximum of vowels are 35.7 and 39.6). This is just about the same as in German, a little less than in Swedish (38.3) or French (about 40), yet less than in Gothic (41), Sanskrit (42), Latin (44), or Greek (46). The average number of consonants to a syllable, then, is 1.682. The whole number of words in the ten passages being 2746, the average number of sounds

* For other details, which cannot well be included here, of the definition and estimate of the various sounds, reference may be made to the author's paper on "The Elements of English Pronunciation," in the second volume of his "Oriental and Linguistic Studies," published in the autumn of 1874.

to a word is 3.642; that of syllables to a word is 1.358: that is to say, there is a second syllable for only about one word in four: the actual number of monosyllables in all the passages is 2028, or 73.8 per cent.; of dissyllables 510, or 18.6 per cent.; of trisyllables, 146, or 5.3 per cent.; and the words of four syllables are 50; of five syllables, 11; of six syllables, 1.

It may be worth while to make a few more general combinations and comparisons. First, the vowels may be classified as follows:

Palatal (<i>e, e, i</i>),	17.44	Openest (<i>a</i>),	.56
Labial (<i>a, o, u</i>),	8.41	Next degree (<i>æ, ä, ʌ</i>),	7.92
Lingual (<i>l, n</i>),	.51	Medial (<i>e, o</i>),	6.79
Neutral (<i>a, ə</i>),	8.07	Closest (<i>i, u, ə</i>),	18.65
Diphthongs,	2.86		

The consonants, classified according to articulating organs, are as follows:

Palatal,	6.29
Labial,	13.15
Lingual,	40.93
Neutral (<i>h</i>),	2.34

According to degree of closeness or openness, they are:

Mutes	(sonant 7.84, surd 10.34),	18.18
Spirants	(sonant 6.20, surd 2.64),	8.84
Sibilants	(sonant 3.41, surd 6.08),	9.49
Nasals,		10.61
Semivowels,		14.25
Aspiration,		2.34

Finally, comparing the surd and sonant elements, we have—

	Of pairs of Cons.	Of all Cons.	Of whole Alphabet.
Surds,	18.53	20.87	20.87
Sonants,	16.98	41.84	79.13

Dr. J. Hammond Trumbull, of Hartford, Conn., next read a paper on "Numerals in American Indian Languages, and the Indian Mode of Counting."

No exception has been found in American Indian languages to Grimm's dictum that "all numerals are derived from the fingers." The greater number of the Indian nations of North America adopted a *decimal* system—counting the fingers of both hands. Some tribes, however, did not advance beyond a *quinary* system, and a few were poorer even than this. The Abipones of Paraguay, we are told, could not count beyond four, giving to that number a name meaning "the ostrich's toes" (i. e. three and one). Other nations, particularly the Mexican and Central American, counted by *twenties* instead of tens or fives, reckoning *toes* as well as fingers, for the base of a numeral system. The Tule Indians of Darien (a vocabulary of whose language was printed in last year's Transactions) adopt this mode of counting: "twenty" being named "one man"; 100, "five men," and so on. A general view of these vigesimal systems was given by Mr. Gallatin in 1845 (Transactions of the American Ethnological Society, vol. i.), and was incorporated by A. F. Pott in his *Zahlmethode*.

Admitting the derivation of numerals from the fingers, the question In what order are the fingers counted? becomes a necessary preliminary to the analysis of any numeral series. Which finger represents *one*? Is it the little finger, or—

as in the counting of deaf mutes—the *thumb*? And when going from “five” to “six,” that is, from one hand to the other, is the sequence from finger to finger, thumb to thumb, or thumb to finger?

The only answer given by Gallatin or Pott to such questions relates to the Eskimo numerals. We learn from other sources that nearly all American nations follow the same order as the Eskimos: namely, they count the little finger (usually of the left hand) *one*, the next finger *two*, and so on to the thumb, which is *five*; the thumb of the other hand is *six*, and *ten* falls on the little finger of that hand. Each finger as it is counted is bent down.

Whether an Indian marks *one* by his little finger or his thumb may seem of small importance to philology; but it is one of the thousand questions which a philologist must answer before becoming qualified to discuss the subject of Mr. Robert Ellis's volume “On Numerals as Signs of Primeval Unity among Mankind” (London, 1873). This writer presents, as “results of primeval affinity—indications of unity of origin in human speech and probably in the human race”—a number of presumed “coincidences, affecting not only numerals but also the names of members of the body from which those numerals are derived, in languages far removed from each other,” and he finds many of these coincidences among Indian languages of America. He detects resemblances between names for “hand,” “finger,” “five,” etc., in the Indian and in the Basque, the original Aryan, and some African languages. Even the much-vexed dice of Toscanella are made to show the likeness of an Etruscan *one* to a Comanche *hand* and an African *finger*.

After brief notice of Mr. Ellis's ingenious volume, the writer proceeded to offer some observations on the etymology of Indian numerals, and on the relations of names for numbers to the several fingers by which the numbers are designated. The little-finger, which stands for *one*, is called by some nations “the youngest son of the hand”; by others, “the little one,” “the last born,” etc. *Paysuk*, the Massachusetts name for *one* (*bezhik* in Chippeway) means “the little one.” *Wanzhidan*, the Sioux *one*, probably means “the little (finger) bent down,” as it is in counting *one*. The fourth or ring finger is nameless in many languages. The Indians often designate it as “next to the little” or “next to the middle” finger. It marks—but rarely if ever gives a name to—*two*. Some names for *two* seem to have been derived from roots meaning “to couple,” “to double,” or the like. Such roots must be of earlier origin than any formal arithmetical system. The dual is older than the plural. From these same roots come names of natural *pairs*, so that in many languages we find a likeness to *two* in the names of “hands,” “arms,” “feet,” “eyes,” etc. Names of *artificial pairs*—moccasins, leggings, mittens, etc.—sometimes come by later derivation from the same roots, or from the numeral *two*. In all the Algonkin languages, in the Dakota, and in some others, *two* and *hands* are very nearly related—the name for hand being derived in many of these languages from a root meaning “taking hold.” The hand is the “holder” or the “seizer.” The *middle* finger is so named in almost all languages, and in many it gives this name to the numeral *three*. *Eight*, which falls on the same finger of the other hand, is often named “the other three,” “three again,” or the like. The *forefinger* is the “index” or “pointer,” as it has been in many languages of the eastern continent. It marks *four*, and names for *four* are often derived from it or from the action of “showing” or “pointing at.” In the Massachusetts language *yau*, “four,” is nearly identical with *yeu*, “this, that, here.” The *thumb* does not often give names to the *five* and *six* which are counted on it. It is called by the Algonkins, “greatest finger”; by the

Dakotas, "parent (or eldest brother) of the hand"; by the Choctaws, "hand's mother," etc. *Five*, that is, *one hand*, is variously named, as "a half" (i. e. of *ten*), "one side," "a stopping place," "all together," "half way," etc.

The other numerals, to *ten*, were similarly discussed, with illustrations from various Indian languages.

A recess was then taken until 8 o'clock.

EVENING SESSION.

On re-assembling, the Secretary reported the following names of new members:

Mr. L. A. Sherman, New Haven, Conn.; Mr. M. C. Stebbins, Principal of High School, Springfield, Mass.; Professor C. T. Winchester, Wesleyan University, Middletown, Conn.; Professor John H. Wright, Ohio Agricultural and Mechanical College, Columbus, Ohio.

Rev. Carl W. Ernst, of Providence, R. I., presented a paper on "The Pronunciation of German Vowels."

It was attempted to arrange these sounds scientifically and in the form of a table, the *fundamentum divisionis* being physiology rather than history or merely anatomy. The question when or where in a word certain vowel-sounds occur, it was stated, can be determined only after an analysis of the vowels, and when the laws of accentuation are defined. The vowels, for the present purpose, were explained genetically as the *voice uninterrupted*, consonants being vocalized or unvocalized breath checked by the tongue or teeth or lips. German vowels are simple or mixed; mixed or diphthongs when consisting of two sounds most intimately united. The *simple* vowels were divided, as to quality, into eight *long* sounds (a, e, i, o, u, ä, ö, ü), and seven *sharp* sounds (a, e, i, o, u, ö, ü), the term sharp differing from short, and being equivalent rather to abrupt. These sharp vowels are not long vowels abbreviated, but differ from them materially, and are pronounced further back in the mouth and with the tongue lowered. As to quantity or time of utterance the vowels were divided into eight long vowels (the same as above), and ten short vowels (the sharp vowels and the three diphthongs), short merely meaning that they occupy little time and about one-fourth of the time occupied by the long vowels. The language has three *diphthongs*: au, ai (also spelled ei, ey, ay), oi (also spelled en, iu, au), which are always short and present to the ear the rapid transition from a sharp to a long vowel. The term *open* was used of the distance between the vocal chords, which is greatest, or as great as taste and ease of individual elocution will permit, in u, gradually diminishing through o, a, and e, it being smallest in i; i is therefore the "closest" vowel in German, and requires the least emission of breath. The aperture of the lips, horizontally and perpendicularly, is greatest in a, growing systematically less in e, i, o, and is as slight as possible in u. The lips protrude most in u, less in o, their position is normal in a, they are pressed gently against the teeth in e, and rather strongly in i. The larynx correspondingly rises in i, less in e, its position is normal in a, below this in o and u. The vowels ä, ö, ü, are pronounced like a, o, u; only the vocal chords and the larynx have the same position as in i. The relation between the vowels approaches mathematical accuracy.

Col. T. W. Higginson, of Newport, R. I., next read a paper on the word "Philanthropy."

It has been said that there is more to be learned from language itself than from all that has been written by its aid. It is possible to reconstruct some part of the moral attitude of a race through a word of its language. This paper may illustrate such a process.

When a word comes into existence, its meaning is carved on the language which holds it. If you find the name of a certain virtue in any tongue, the race which framed that language knew that virtue. The word Philanthropy is a modern word in the English language. The Pilgrim Fathers may have practised what the word meant, but few among them had heard the word, perhaps none had used it. It is not in the writings of Chaucer or Spenser or Shakespeare, nor even in the authorized version of the English Bible, first published in 1611. The corresponding Greek word, occurring three times in the original, is each time translated by a circumlocution. The word Philanthropy does not appear in the pioneer English Dictionary—Minsheu's Guide to the Tongues, first published in 1617, nor in the Spanish Dictionary of the same Minsheu, in 1623. But two years later, in the second edition of the Guide to the Tongues, it appears as follows, among the new words distinguished by †; "Philanthropie: Humanitie, a loving of men:" and then follow the Greek and Latin words as sources of derivation.

This is its first appearance as an English word. But Lord Bacon, publishing in the same year (1625) his essay on Goodness and Goodness of Heart, uses the original word as follows: "I take goodness in this sense, the affecting of the weal of men, which is that the Grecians call *Philanthropia*; and the word Humanity (as it is used) is a little too light to express it."

The next author who uses this word is Jeremy Taylor. In his Holy Dying, (published 1651), he translates the Greek word *φιλανθρωπος* "a lover of mankind," but in his Sermons, published a year later, though perhaps preached earlier, he uses the English word, the phrase being "that godlike excellency, a philanthropy and love to all mankind;" and again, "the philanthropy of God." The word took root slowly. In 1693, in a preface to Sir H. Steere's version of Polybius, Dryden used it with an apology, thus: "This philanthropy, which we have not a proper word in English to express."

Three leading writers of their century—Bacon, Taylor, and Dryden,—thus furnish the milestones that mark the entry of the word philanthropy into our language. Doubtless the reason of its use is correctly stated by Dryden; it was needed.

The Greek word *φιλανθρωπία* gave the avowed key-note for the greatest drama preserved to us and also for the sublimest life of Greece. It seems to have been first used by Epicharmus, who was born about 540 B. C. Its first important use was in the Prometheus Bound of Aeschylus, probably represented about 460 B. C. The vengeance of Zeus has fallen upon Prometheus for his love of man; he is to be bound to the desert rock for his philanthropy, *φιλανθρωπίων τρόπον* (lines 11, 28). In the most magnificent soliloquy in ancient literature, Prometheus accepts the charge and glories in his offense; he admits that he has conveyed the sacred fire of Zeus to men, and thereby saved them from destruction. The philanthropic man is exhibited under torment for his devotion, but refusing to regret what he has done. There is no play in modern literature which turns so entirely on the word and the thing, philanthropy.

In the *Euthyphron* of Plato (§ 3), Socrates uses the word thus, replying to an opponent (Jowett's translation): "I dare say that you don't make yourself common and are not apt to impart your wisdom. But I have a benevolent habit (*ἀπὸ φιλάνθρωπίας*) of pouring myself out to everybody, and would even pay for a listener, and I am afraid the Athenians know this."

Coming down to later authors, we find the use of the word in Greek to be always that for which it was imported into English. How apt we are to say that the Greeks thought only of the state, not of individuals, nor of the world outside! Yet Isocrates heaps praises on a man for being *φιλάνθρωπος καὶ φιλαθήναιος καὶ φιλόσοφος*. Demosthenes uses *φιλάνθρωπία* in contrast to *φθόνος*, and to *ὠμότης*, and speaks of employing philanthropy towards any one, *φιλάνθρωπιαν τινὶ χρῆσθαι*. Xenophon makes Cyrus describe himself on his death bed as *φιλάνθρωπος*, and Plutarch sums up the praises of a youth by the same epithet, in the passage translated by Jeremy Taylor. Plutarch also, in his *Life of Solon*, employs the word *φιλάνθρωπον*, a philanthropic act. Epictetus (*Fragm.* 46) says that nothing is nobler than *φιλάνθρωπία*. Diodorus speaks of a desert country as *ἐστέρημένη πάσης φιλάνθρωπίας*—destitute of all philanthropy, or, as we might say, "pitiless."

We have then a virtue thus named, which dates back within about two centuries of the beginning of authentic history. Some of the uses of the word have almost disappeared; such as its application to Deity. Aristophanes (*Peace*, 394) applies it thus to Hermes: *ὦ φιλάνθρωπότετε*; and Paul uses it similarly in *Titus* iii. 4. Athanasius uses it as a complimentary form of address, *ὦ σὴ φιλάνθρωπία*, as Englishmen might say "your grace" or "your clemency" to a titled person, and even Americans say "your honor" to dignitaries. In modern literature Jeremy Taylor, Barrow, and Young use the word in application to the Deity, but this is now rarely heard. With the Greeks, the word did duty in the double sense of "the fatherhood of God and the brotherhood of man."

It is hardly just in Max Müller to say that "humanity is a word for which you look in vain in Plato or Aristotle" without alluding to this history of the elder word. Even the omission of the word and thought in Aristotle was criticized before Max Müller by Plutarch, who says (in his "*Fortune of Alexander*") that Aristotle advised Alexander to treat the Greeks as friends and kinsmen, but the barbarians only as animals or chattels; but that Alexander wished that all should regard the whole world as their common country, the good as fellow-citizens, the bad only as foreigners—that every good man should be esteemed a Hellene, every evil man a barbarian. The Stoics are represented as teaching that we should look upon all men in general as our fellow countrymen. The Pythagoreans, five centuries before our era, taught the love of all to all. Menander said: "To live is not to live for one's self alone; let us help one another." Epictetus maintained that "the universe is one great city full of beloved ones, divine and human, endeared to each other." The same chain of thought was continued down through the Latin writers. Terence, Cicero, Quintilian, and Juvenal may be cited to similar effect.

It is a remarkable fact that the word "philautie" for "self-love" from the Greek *φιλαυτία*, was introduced by Minsheu, at the same time with "philanthropie," and was used by Holinshed and by Beaumont and Fletcher, but is now obsolete. The bad word died of itself, but the good word took root and flourished.

Our debt to the Greek race is not merely scientific or æsthetic, but in some

degree moral and spiritual as well. However vast may be the spread of philanthropy in Christendom, we should give the Greek race some credit for the spirit, since at all events we must give them full credit for the word.

On motion, Professor Whitney, Mr. Buckingham, Professor Seymour, Professor Young, and Professor Haldeman were appointed a committee to nominate officers and members of the Executive Committee for the ensuing year.

On motion, Dr. Trumbull, Col. Higginson, Professor W. F. Allen, Professor Comfort, and Professor Tyler were appointed a committee to recommend a place and a day for the next meeting of the Association.

The Association stood adjourned to 9 o'clock A. M.

THURSDAY, JULY 16—MORNING SESSION.

At the opening of the morning session, Professor Albert Harkness, of Brown University, Providence, R. I., read a paper on "The Formation of the Tenses for Completed Action in the Latin Finite Verb."

The Latin, Greek, and Sanskrit undoubtedly inherited, from the mother tongue of the Indo-European Family, the power to express completed action by means of *reduplication*, and to create new tense-forms through the help of *auxiliary verbs*. The Latin is, however, distinguished from the Greek and Sanskrit by a freer use of compound tense-forms to supply the place of the reduplication. Indeed, in all tenses for completed action, except the perfect, compound forms alone are used. In *cecineram*, for instance, we at once recognize the modified stem *cin*, which gives the general meaning of the verb, the reduplication *ce*, which denotes completed action, and the auxiliary *eram*, which adds the idea of past time. We have, therefore, an expression for completed action in past time. But the analysis of *cecinissem* is more difficult. Corssen explains it as compounded of *cecin*, *ī*, and *essem*, but he does not show the origin or the use of the long *i*, a fact which renders his explanation comparatively worthless. But *cecinissem* may be formed from *cecin* and *essem*, originally *ecem*, which became *isem* in compounds, as *cecinissem*; then by a subsequent doubling of the *s*, *ecem* became *essem*, and *isem* in compounds *issem*; hence *cecin-issem*.

But the great difficulty to be removed is found in the endings of the Perfect, *i*, *isti*, *it*, *inus*, *istis*, *erunt* or *ere*. These endings present peculiarities which have never been explained. Bopp's labored effort to bring the Latin Perfect into some sort of harmony with Sanskrit aorist forms has proved a complete failure. Schleicher's attempted explanation is admitted by the learned author himself to be incomplete, and is in the main rejected by Corssen, while the views expressed by Corssen himself upon the general subject of the formation of the Latin Perfect fall far short of meeting the real difficulty.

It is evident that the problem before us can be solved only by some new method; and numerous facts in the language suggest the inquiry whether some different

treatment of the auxiliaries, *esi* and *fui*, which are used in the formation of Perfects in *ui*, *vi*, and *si*, may not give us the key to the true explanation of these remarkable forms. No one has ever traced *esi* back to its original form. It corresponds to the Sanskrit *āsa*, but *āsa* itself is not an original formation, but has been contracted from *asasa* or *asasma*. After the analogy of the original Sanskrit, the corresponding Latin stem *es*, seen in *sum*, *esse*, would give *esismi* inflected thus:

<i>esismi</i>	=	<i>esimi</i>	=	<i>esi</i> .
<i>esisti</i>	=		=	<i>esisti</i> .
<i>esisti</i>	=	<i>esist</i>	=	<i>esit</i> .
<i>esismus</i>	=		=	<i>esimus</i> .
<i>esistis</i>	=		=	<i>esistis</i> .
<i>esisunt</i>	=	<i>esirunt</i>	=	<i>eserunt</i> .

The various changes by which *esismi*, *esisti*, etc., become *esi*, *esisti*, etc., are readily explained. The auxiliary thus assumes the exact form in which it appears in Perfects in *si* and *xi*, as *carp-esi*, *carpsi*, *carpsisti*, *carpsit*, etc.

The same treatment of *fui* from *fuismi*, compounded of *fu* and *es* gives the exact endings of Perfects in *ui* and *vi*, as *alui*, *amavi*, etc.

The discussion leads to the following conclusions:

1. The tense sign of the Latin Perfect in all verbs is the reduplication or its equivalent. In compound forms in *ui*, *vi*, and *si*, it is seen in the auxiliary, which is formed either by reduplicating the stem *es* or by combining it with its equivalent *fu*.

2. The peculiarities of the Latin Perfect—the final long *i*, *s* in the first syllable of *isti*, *istis*, and finally the endings *erunt* and *ere*—are the direct result of the reduplication of *es* or of its combination with *fu*. These peculiarities are readily explained without doing violence to any known law of the language, and without requiring the insertion of a single letter, even of a connecting vowel. Moreover not a single element in any of these forms sustains any important loss.

The second paper of the morning was read by Professor Gustavus Fischer, of Rutgers College, New Brunswick, N. J., on "The Present Condition of Latin Grammar."

The science of Latin grammar has not kept pace in our day with other sciences. In almost every part of syntax, the present condition of grammatical science is exceedingly defective. The grammars leave us without an answer just when they ought to answer; they often answer just when it is not worth while to ask a question. The time has come when we should apply the microscope to the study of language. True philology is one of the natural sciences, and accurate and minute observation is no less necessary in it than in any other of them. Philology, indeed, deals with the mind; we may call it a physiology, but at the same time a history of the mind. We have already begun to apply this microscopic investigation to the origin of words; it remains now to apply it to Latin syntax in the same manner as many members of this Association have successfully applied it to some parts of Greek grammar. Such a treatment of Latin grammar would be essentially historical, carefully separating the different epochs, and always beginning with the oldest writers in which a given syntactical form occurs.

One of the examples adduced was the use of the subjunctive with *sunt qui*, *est qui*, etc. (for instance, "*sunt qui dicant*," "there are persons who say"), in classi-

cal prose. There is no Aryan language, except the Latin, in which such a subjunctive occurs. Some grammarians are altogether silent on the reasons for the use of this subjunctive. Others explain *sunt qui dicant* by *sunt homines tales ut dicant*. But this is evidently erroneous. For, aside from the fact that this construction is frequently used when definite and particular statements without any reference to "kind" are assigned to persons, such modal *ut*-clauses never occur in this connection, and hence the clauses with *qui* could not possibly be substitutes for modal *ut*-clauses. Haase considers this subjunctive a *linguistic necessity*, because, he says, the predication is contained in the principal sentence, and hence the use of another indicative for the same predication in the relative clause would be a linguistic pleonasm. This peculiar idiom can only be explained *historically*. Happily we have the first beginning of this usage before our eyes. We find that neither Plautus nor Terence ever uses a subjunctive in this construction, although the construction itself not rarely occurs in these writers, as: "*Sunt quos scio esse amicos*;" "*sunt quorum ingenia atque animos non queo noscere*." In Cato and Lucretius the construction does not occur. In Varro it is found six times, and only once with a subjunctive, which is not owing to the *sunt qui*. Varro's contemporary, Cicero, was the first who used *sunt qui* with a subjunctive, and so frequently that it will be difficult to count the passages. While Cicero uses the subjunctive in this construction (say) 200 times, the indicative occurs only in two or three authenticated passages, although if *sunt qui* or *est qui* is qualified by the addition of *multi*, *quidam*, or similar adjuncts, the passages with the indicative are a little more numerous. Caesar and Sallust use the construction a few times, and oftener with the subjunctive than with the indicative. Livy uses the construction oftener than all classical writers together, and always with the *subjunctive*. The poets of the classical period almost always use the *indicative*. The writers of the silver age follow the use of Cicero and Livy, though in Seneca four or five times the indicative occurs. Hence it is evident that the subjunctive in this construction had its origin in the time of Cicero, and was probably introduced by Cicero himself. On the other hand, we find that even in the classical writers the subjunctive is always used if the principal sentence is negative or contingent. But this negative or potential subjunctive has a considerably wider range than with *sunt qui*, although our grammars do not enumerate this class of subjunctives (which I call "*the subjunctive of non-reality*") among the "general" instances of subjunctives.

The subjunctive of non-reality occurs if the principal sentence is negative (and generally also if it is potential or contingent), and if this negative in the principal sentence makes the dependent clause virtually negative, although it has an affirmative form. Even in clauses introduced by the Latin equivalents of "that," the language does not generally use the regular form of an accusative with the infinitive, preferring a clause with *ut*, in order to designate an action as having no reality (while it has an affirmative *form*), since this form alone admits the introduction of a *subjunctive*. It seems evident that the very frequent uses of subjunctives of non-reality in the construction *sunt qui*, etc. (as "*nemo est qui dubitet*," etc.), caused the use of a subjunctive in the relative clause even when the principal sentence was not negative. Hence we must consider this subjunctive as resting upon a mere conventional usage, and as having arisen from a false analogy of those constructions in which the subjunctive expresses the idea of non-reality.

Mr. C. D. Morris, of Peekskill, N. Y., read the next paper, on "The Age of Xenophon at the Time of the Anabasis."

The object of the paper was to show that there are many improbabilities attending the supposition that Xenophon was born B. C. 444, and was consequently forty-three years old at the time of the Anabasis, which has been taken for established since the publication of K. W. Krüger's tract in 1822; and that therefore we must discredit the story, on which alone that supposition rests, that the life of Xenophon was saved by Socrates at the battle of Delium, B. C. 424. This story is found only in Strabo (cir. B. C. 10) and in Diogenes Laërtius (cir. A. D. 200), and it is, therefore, a legitimate object of criticism. It was judged to be antecedently incredible (1) as being inconsistent with the narrative of Plutarch in his life of Alcibiades; (2) because, if Xenophon was of military age at the battle of Delium, it is hardly possible that he, with all his practical efficiency, should have had nothing to do with the subsequent events of the Peloponnesian war; (3) on the ground that, if Xenophon owed his life to Socrates, he would surely have alluded to the fact, if not in his other writings, certainly in the Memorabilia; (4) because he had at least four of his works in hand considerably after the battle of Mantinea, B. C. 362, at which time he must have been over eighty-two years old. But the strongest reason for discrediting the story is the impossibility of giving a natural interpretation to several passages in the Anabasis except on the hypothesis that Xenophon was quite a young man at the time, probably not over twenty-five years old. When we remember that Proxenus was only thirty at the time of his death, Agias and Socrates about thirty-five, and Menon certainly considerably younger, we must feel that Xenophon, when meditating on the expediency of putting himself forward, could not, if he were over forty, have seemed to himself too young for a general's responsibility, and therefore could not have said to himself (iii. 1, 14), *ποῖαν ἡλικίαν ἐμαντῶ ἐλθεῖν ἀναμένω*; οὐ γὰρ ἐγὼ γ' ἐτι πρεσβύτερος ἔσομαι, ἐὰν τήμερον προδῶ ἐμαντὸν τοῖς πολεμίοις; nor could he have said to the captains of Proxenus, who were in the habit of yielding obedience to a man of thirty (iii. 1, 25), *κἀγὼ δέ, εἰ μὲν ὑμεῖς ἐθέλετε ἐξορμᾶν ἐπὶ ταῦτα, ἐπεσθαι ὑμῖν βοῦλομαι*; εἰ δ' ὑμεῖς τάττετε με ἡγεῖσθαι οὐδὲν προφασίζομαι τὴν ἡλικίαν, ἀλλὰ καὶ ἀκμάζειν ἡγοῦμαι ἐρύκειν ἀπ' ἐμαντοῦ τὰ κακά. Similar indications of an age at least under thirty are found in iii. 2, 37; iii. 4, 42; v. 3, 1; vi. 4, 25; vi. 5, 4; and the frequent allusions to others as *πρεσβύτεροι* or *πρεσβύτεροι* are themselves indications of comparative youth on the part of the person who makes them. The only passage in the Anabasis (vii. 2, 38) which has been thought to indicate greater maturity, viz., that in which Seuthes proposes to buy Xenophon's daughter, if he had any (*εἰ τις σοὶ ἐστὶ θυγάτηρ*), is of no weight, as we know nothing of Xenophon's looks; and probably Seuthes may have made this offer, as he did all the rest of his offers, without any thought of the probability of his fulfilling it. In conclusion, it was insisted, after Grote, that the objection to reposing confidence in one so young as Xenophon was, which would naturally present itself to the soldiers, would be readily lost sight of in view of the remarkable capacity he exhibited to think, speak, and act with equal efficiency, which was the result of his Athenian training.

Professor W. D. Whitney, of Yale College, New Haven, Conn., read a paper on "The Relation of Vowels and Consonants, and certain Inferences from it."

The special characteristic of human speech is, that it is *articulate*. This means in reality what is literally expressed by the name. Our speech is broken into *articuli*, or joints, and is thus made both intelligible and flexible; and the joints are the syllables. A language of mere tone-sounds, shading and varying into one another without marked divisions, would be a sing-song; a language of mutes and fricatives, of explosions and buzzes, would be a splutter: both alike would be wanting in the availability for abundant and distinct expression which belong to our present utterance. The articulated or syllabic effect is capable of being given in various ways: least perfectly, by mere change from one vowel to another; distinctly enough, by a hiatus between vowels, or repetitions of the same vowel; but most effectively, and in the practical use of speech prevailing, by the intervention of closer sounds, or consonants, between the opener sounds, or vowels. For example, *a* may be prolonged indefinitely as only one syllable; but divide its continuity with a consonant, as in *apa*, *ala*, and the effect is dissyllabic.

This brings to light the essential distinction of vowel and consonant: the one is an opener sound, with the element of tone or material prevalent; the other is a closer sound, with the element of oral modification, or of form, prevalent. All the current definitions of the two classes, so far as they are true and tonable, are founded upon and imply this. If, in the light of this description, all vowels were equally vocalic, and all consonants equally consonantal, there would be reason for treating the two classes separately, as independent systems. But this is not the case. There are series leading, by successive degrees of the same oral modification, clear through the alphabet, from the openest vowel to the closest consonant: such, for instance, is *a*, *æ*, *e*, *i*, *y*, *gh-kh*, *g-k*.*

Along these series, the two classes shade into one another, with a class of sounds near the division-line—especially *l*, *r*, *n*—which are capable of serving either office. And so the closest vowels, *i* (*pique*) and *u* (*rule*), are capable of passing, with no difference of articulate form, but only of quantity and stress, into the consonants (semivowels) *y* and *w*. The openest vowels are vowels only; the closest consonants are consonants only; but there is an intermediate domain, of doubtful and changeable character. Thus, in *lap* we have a central openest sound, to which the less open *l* and the yet closer *p* are felt only as accessories; in *alp* we have a transition from openest to closest through an intermediate degree, in *pla* the contrary, and it is still a single syllable; but arrange the same sounds in the order *apl* (i. e. *apple*), and the word is dissyllabic, because there are two sounds of sufficient openness separated by a closer.

The principles of syllabication may be graphically illustrated (as was done by the speaker, upon the blackboard), by representing the stream of opener vocalic utterance, with the constrictions and separations (effected by fricatives and mutes, etc.) dividing it into parts or joints.

The truest and best physical scheme of the alphabet is one which illustrates this relation of vowel and consonant by arranging all sounds between the openest of them all, the *a* of *far*, and the three closest, the mutes *k*, *t*, *p*, in classes accord-

* The vowel-signs are used as in the author's previous paper (above, page 16), and *gh-kh* represent the fricatives lying nearest to *g-k*, or the German *ch*-sound and its corresponding sonant.

ing to their degree of closeness or openness of the articulating organs, and in lines (approximately) according to the organs used in forming them; or somewhat as follows:

sonant.	{			<i>a</i>			}	vowels.
			<i>æ</i>	<i>A</i>				
			<i>e</i>		<i>o</i>			
		<i>i</i>	<i>ə</i>		<i>u</i>			
		<i>y</i>	<i>r, l</i>		<i>w</i>			semivowels.
		<i>ng</i>	<i>n</i>		<i>m</i>			nasals.
surd.	<i>h</i>							aspiration.
sonant.	<i>zh</i>		<i>z</i>				}	sibilants.
surd.	<i>sh</i>		<i>s</i>					
sonant.			<i>dh</i>		<i>v</i>		}	spirants.
surd.			<i>th</i>		<i>f</i>			
sonant.	<i>g</i>		<i>d</i>		<i>b</i>		}	mutes.
surd.	<i>k</i>		<i>t</i>		<i>p</i>			
	palatal series.		lingual series.		labial series.			

In this scheme, the nasals are put next the semivowels, because, though in one sense contact-letters, mutes, they are in another respect a class of sounds in a high degree open, sonorous, and continuable; and because they share with the vowels and semivowels the possession of a common surd, the "aspiration" *h*, which accordingly finds its proper place as such.

This arrangement is of value also as casting light upon the historical development of the alphabet. In the earliest Indo-European language, the greatly predominant sounds were the extreme ones, *a* and the mutes; and the alphabet has ever since been filling up more and more with intermediate articulations. Of the fricatives (sibilants and spirants together) only the *s* is a primitive Indo-European letter. The same is true of the vowel-system; its extremes, the *a*, *i*, and *u*, are alone original. This filling up is not because the intermediate sounds are, in themselves and absolutely, easier of utterance; they are rather the contrary; they are harder for the child to learn to produce, and less frequently met with in the sum of human speech. But in the rapid transitions of fluent utterance, from vowel to consonant and consonant to vowel, there is less expenditure of force in passing back and forth between sounds of medial character; the organs find this art (unconsciously, of course) by experience, and alter the sounds of extreme into those of medial closeness. Hence there is a constant general movement from the two ends of the alphabet toward its middle, an assimilation, as it were, of the two great classes to one another: the vowels become closer or more consonantal; the consonants become opener or more vocalic. The articulated emission of sound assumes a different character: its general breadth and fullness (as depending on the vowels) are reduced or contracted; and the articulating elements, the consonants that break it into joints, are of less incisive character and of inferior dividing effect. This thinning process has gone a great way in English. The facts most strikingly illustrating it are that the open *a* of *far*, which once formed full 30 per cent. of Indo-European utterance, has sunk with us to a half of one per cent., while the two close vowels *i* and *e* (the neutral sound in *but* and *burn*)

make over 16 per cent. ; and the fricatives have become more numerous than the mutes. This is, in its way and degree, a degeneration of the phonetic form of language; we may hope that it will not go enough farther to degrade seriously the character of our speech.

A recess was taken until afternoon.

AFTERNOON SESSION.

The Secretary reported the election of new members :

Mr. John C. Bull, American Asylum, Hartford, Conn.; Dr. D. J. Pratt, Assistant Secretary of the Board of Regents, Albany, N. Y.; Mr. J. W. Schermerhorn, New York.

Professor C. H. Brigham, of Ann Arbor, Mich., exhibited a Siamese manuscript.

This manuscript is on black pasteboard, twenty feet long and thirteen inches broad, with writing on both sides. The letters, one-third of an inch long, are painted in yellow color. The words read from left to right. The lines are divided, and judging by the similarity of sound in the endings, there is rhyme as well as poetry in them. The subjects on the opposite sides of the manuscript seem to be different. A reasonable conjecture is that it contains two Siamese poems. The manuscript was brought from the East Indies many years ago by a gentleman since deceased, who gave no information how or when he obtained it.

Professor J. M. Van Benschoten, of Wesleyan University, Middletown, Conn., read a paper on "Troy and Dr. Schliemann's Discoveries."

The paper was illustrated by diagrams and a large collection of photographs, and was based in part on the author's own investigations as to the geography of Ilium and the work which has just been carried on there. Dr. Schliemann's labors were carefully described, and his wife's assistance in them was commended. Part of the paper was devoted to an examination of the geographical knowledge of Homer. The general results were summed up somewhat as follows :

What has Schliemann discovered ? Manifestly a city of very ancient date. Whether it be Troy or not is another question, the answer to which awaits further exploration and discovery immediately at Hissalik and the Greek camp at Mycenae and Argos and other countries of ancient civilization. Of the existence of an actual Troy there can hardly be a question any longer. Egyptologists have established beyond a reasonable doubt what concurrent tradition had long tried to settle. As to the age of these ruins of Hissalik there is and will be diversity of opinion. It will require more years to capture this question than Agamemnon spent in taking Troy. History never had such a problem to solve before ; accepted theories of chronological sequence have broken down. A very few facts sum up ancient history. Save what concerns the Egyptians and the Hebrews we know next to nothing of the ancient world. We amuse ourselves with the terms pre-historic, pre-hellenic, etc., terms as vague as anything can well be. Schliemann's stone stratum succeeds his bronze stratum. I think it reasonable to conclude that the stone and the bronze age are not necessarily a mark of

great antiquity, neither is the order of superposition a law. The same line of statement may with some limitation be made with regard to pottery. It is a common opinion that rude pottery, rude in texture and execution, is a certain index of a rude civilization. Not so. In historical periods undoubtedly there are certain well-settled marks of age and nationality. As to the Hissalik pottery, to much of it a high antiquity may perhaps reasonably be assigned. The rude graffiti or scrawls on Schliemann's terracottas, at one time so unpromising, are just now attracting the profoundest interest. As to his *γλαυκῶπις Ἀθήνη*, when he shall have made good his promise—or threat—to dig out at Mycenae a *βοῶπις Ἀθήνη*, we Greek schoolmasters will review and revise our Homer and read "owl-eyed Athena." This indicates Schliemann's weakness. He is so exacting that the most insignificant object, be it what it may, which his spade throws out of the hill of Hissalik *must* be connected with some Homeric name, and he is so credulous that he *believes* it to be thus associated. A battered helmet must be the helmet of Ajax ; a shivered lance must be the lance of Achilles, and so on. But in spite of defects in Schliemann's education and in spite of his over-great enthusiasm verging on insanity, he has done the world an incalculable service. Excavations on ancient sites are to be the order of the day for the next decade.

Dr. Robert P. Keep, of Hartford, Conn., read a paper on "Mr. Isaac Taylor's 'Etruscan Researches.'"

The chief source of information respecting the language of the Etruscans, is the inscriptions, which, in number not less than three thousand, have been discovered in different parts of Etruria. The character in which they are written offers little difficulty, resembling clearly as it does the character common to ancient Greek and Latin records. These inscriptions are found upon a closer examination to be exceedingly disappointing. Only seventeen of the whole number are bilingual, and of the rest many are mere mortuary records of the briefest form, while it often happens that one is but the repetition of another. Of a literature we can not seriously speak. We have only a collection of fragments, a few scattered words. The importance of the interpretation of these, however, is apparent when we consider the intimate relations which existed for several centuries between Etruria and Rome. How much indeed of what we call the essential character of Roman civilization was due to or directly borrowed from the Etruscans, how far the Roman mythology, where it differs from the Greek, may be Etruscan, we shall only know when we shall have discovered the linguistic affinities of the Etruscan language.

The latest attempt in this direction is that of the Rev. Isaac Taylor, in his book published last winter in London, and not yet reprinted in this country, entitled "Etruscan Researches." He maintains that the Etruscans are of Scythian or Turanian origin. The *presumption* in favor of this theory follows from a consideration of their architecture, their religious belief, their social customs, their artistic capacity, and their mental and physical constitution ; and the *confirmation* is sought in a comparison of the remnants of their language with the vocabularies of different people of the so called Turanian family. It is not, however, too much to say that the presumption after the perusal of the first or general part of Mr. Taylor's book, where he discusses the question on ethnological grounds, remains *against* the theory. We pass to what Mr. Taylor considers

the more important division of his work, the attempt to identify and interpret Etruscan by the aid of Ugric words.

In the Museum at Palermo there is an Etruscan sarcophagus with a relief in the Greek style upon its face, representing the parting scene between a husband and his wife. On either side of a door which represents the entrance to the lower world, stand two winged genii and under them are written the words *KULMU* and *VANTH*. The meaning of "death angel," or "destroying angel" seems clear enough for the two words. Now in the Finnic Epic Poem, the "Kalevala," *Kalma* means "ruler of the grave;" in modern Finnic, *Kalmia* is "the smell of a corpse"; in Samojed, *Kolmi* is "spirit of the dead"; in Lapp, *Kalmi* is "the grave"; i. e., these different words in various Ugric dialects show a correspondence to each other in form and meaning, and *KULMU* resembles them in form. For *VANTH*, Mr. Taylor gives us Turkish *fena*, "annihilation" and Finnic *wana* "old." To show how easy it is to give from Latin and Greek examples of correspondence both in form and probable meaning to a large part of the Etruscan words which Mr. Taylor brings forward, suppose we suggest the great root *φαν* as we see it in derived words, such as *φάντασμα*, *λεπρόφαντης*. I will here and occasionally in other cases suggest such analogies. My object is rather to show that Mr. Taylor's method yields no trustworthy results than to claim for my own examples identity with the words which have suggested them.

A fresco on the walls of a tomb at Volsci represents the immolation of Trojan prisoners by Achilles. Over the head of the figure which witnesses the sacrifice is written *HINTHIAL PATRUKLES*, which seems to mean "Shade of Patroclus." We have also a mirror, upon which is portrayed the visit of Ulysses to the lower world. He is accompanied by *TURMS AITAS*, "Hermes of Hades" and near him stands a drooping corpse-like figure *HINTHIAL TERESIAS*, "the shade of Teresias." Now Tungusic *Han* means "idol." For the meaning of *AL* we are referred to the mirror where one of the Trojans awaiting immolation is labelled *TRUIALS*. *s* is considered to be demonstrative, and *AL* to be a sign of descent. *Trui-al-s* then means "this the son of Troy." Of the word *HINTHIAL*, we understand now the first and last syllables. There remains the middle syllable *THI* which Mr. Taylor thinks signifies "grave," and he explains the whole word, taking the elements in no regular order, but in the order 1-3-2, "the image of the child of the grave." Would a connection with the root *ιδ* as modified in *ειδωλον*, *ινδάλλομαι*, *Odyssey* III. 346, not be less far fetched, and absurd? *TH* represents with tolerable regularity in Etruscan words, a Greek *θ*; e. g. *UTHUZE*—*Ὀδυσσεύς*.

After showing the unsatisfactory treatment by Mr. Taylor of several other words, the author of the paper called attention to his interpretation of the syllables found on the so called "dico," discovered at Toscanella, in 1848. Mr. Taylor stakes his case upon his success in identifying these syllables with Ugric numerals. The following table will show what the analogies are upon which he so confidently rests:

for *MACH*, Turkish *bar-mach*, "finger,"=1; *KI*, Finnic *kez*, *kezi*, "hand,"=2; *ZAL*, Finnic *jalka*, "hand,"=3; *SA* [Total disagreement between the Ugric dialects in designating four, which Mr. T. believes to be the meaning of *SA*—]=4; *THU*, Yenisseic *ton*, "hand,"=5; *HUTH*, Samojedic *much-tun*, *much*=*much*=1; *tun*=5, *much-tun* is to be regarded as suffering contraction into *HUTH*,=6.

The following was the parallel, made in 1848, in the German Institute, between these Etruscan syllables and the Greek and Latin numerals:

MACH, *μία*; THU, *δύο*; ZAL, *τρεῖς*; HUTH, *quatuor*; KI, *quintus*; SA, *sex*.

Since Mr. Taylor's book deals with languages which few understand, it must be judged according to the merits or defects of its method. This test it can not bear. Its author lacks discrimination as well as the special knowledge which such an investigation as he has undertaken presupposes. The first facts of the theory are left unproved. The agglutinating character of the Etruscan language is not made out. The chief service which the book will render will be in calling anew the attention of scholars to an important problem, and in furnishing to the general reader a convenient manual of information about the Etruscans.

Dr. J. Hammond Trumbull, of Hartford, Conn., presented a paper on "Names for Heart, Liver, and Lungs."

Three or four Indian tribes living west of the Mississippi were designated by the Algonkins as *Panis*. This name (now commonly written *Pawnees*) did not belong to the language of those who bore it, but was an appellation contemptuously given by Algonkins to servants and inferiors. It denotes, primarily, the Lungs or Lights, of man or beast. A simpleton, coward, slave, or generally an inferior being was characterized as *lung-y* or 'all lungs'. A similar figure of speech is found in other American languages. In the Dakota, *cha'ghu* is 'lungs', *chaghu-ku* 'a fool'. In the Arapaho, *ikun'a* 'lungs', *kuna-nit'ut* 'cowardly, easily scared'. Nor is the figure exclusively American. In the Lapp, we find *keppa* 'lung', *keppes* 'poor, mean': and in the African Mpongwe, *ibobo* means both 'lung' and 'coward'. The association of ideas of weakness and inferiority with the lungs, seems to have originated in contrasting these organs with the liver. The liver is heavy, compact, of dark color; the lungs light, spongy, pale: the liver was esteemed good for food; the 'lights' were of little value. With the one, came to be associated ideas of strength, constancy, activity, courage; while the other became the type of weakness, levity, inactivity, cowardice. The liver was regarded as the seat of the desires and passions by which men come to mastery; the lungs, as the mere *servants* of the body, kept at unceasing work day and night. The quality which in most European languages has given names to the lungs is their *lightness*. The English 'lights' and 'lungs' are etymologically identical, both being represented in the Skr. *laghu*, which has the meanings of 'feeble', 'mean', 'insignificant', as well as of 'light' (*levis*). In Polynesian languages, Tonga *mama* means 'light' and 'lungs'; Hawaiian *akemama* 'lungs' is literally 'light liver' (Germ. *die leichte Leber*). The Eskimo *puak* 'lung' is related to *puok* 'to float on water'; and the Mohawk *osticesera* 'lungs', to *ostosera* 'feathers', etc. The association of ideas by which 'light' takes the meanings 'slight', 'weak', 'inconstant', etc., is obvious. Less clear, at first sight, is the connection between 'lightness' and 'slowness'. We may trace it in Indo-European derivatives from the root of Skr. *laghu* and *lagh*, including Irish *lag*, and English 'lag' and 'laggard', as well as 'lungs' and 'lights'. The old naturalists taught that "the smaller the lungs are in proportion to the body, the greater is the swiftness of the animal" (Plin., *Hist. Nat.*, xi. 72).

The Liver has very generally been regarded as the seat of the passions and the animal nature of man. Traces of this belief may be found in many widely-sepa-

rated languages. The Orientals ascribed to the liver the principal agency in making the blood, and hence, perhaps, it became to them, in some sense, sacred; for "the life of the flesh is in the blood". With the Hebrews, it was 'the most precious', man's 'honor' and 'glory'. Names of the *gall* and of *bile* have generally in European languages been transferred to the evil or ignoble passions. Derivatives from Gr. *χόλος*, *χολή*, and Lat. *bilis*, are numerous in modern languages. Lat. *fel*, kindred with *bilis*, received in addition to its secondary meaning, 'poison', that of 'bitter anger' or 'wrath'; A. S. and O. Eng. *fell* was used in the double sense of 'gall' and 'anger', and had its adjectives 'fellish' and 'felly'.

Recognition of the Heart as the life-center and source of vital energy may be found far back in almost every language. To the Semitic and Aryan philosophies, this organ was the seat of mental as well as of physical activity. To it was referred, perhaps by one of the earliest, certainly by one of the most common figures of speech, all that belongs to man's inner life, to "that which perceives, thinks, wills, and desires". In every family of language, we find the name of the physical organ transferred to mental and moral faculties, to the will and the emotions. The Sanskrit *hrīd* means 'mind' and 'knowledge' as well as 'heart'; and so, the later derivatives of the same root in the parent speech, Gr. *καρδία*, Lat. *cord*, *cor*, Goth. *hairtō*, A. S. *heorte*, etc. In English, we borrow from more than one branch of the great family. From the Latin, through the Norman, we have *core* (the heart as a center) and *courage*. We have *cordial* as well as *hearty*, and once had *cardiac* (heartening, invigorating), now nearly obsolete except among physicians. The old verb 'to hearten' is regaining its place in our language. Other viscera have contributed to our vocabulary by transference of their names to passions and emotions of which they were supposed to be the seats. We retain the adjectives 'choleric', 'spleeny', 'splenetic', 'melancholic', 'hypochondriac', though we no longer locate melancholy in the hypochondria or attribute it solely to excess of 'black bile'.

Professor George F. Comfort, of Syracuse University, Syracuse, N. Y., next presented a paper on "Helveticisms in Schiller's Tell."

No literary production of modern times has been subjected to more searching criticism than Schiller's drama of *William Tell*. In this careful analysis the extraordinary artistic power of the poet has been revealed in nothing more strikingly than the masterly way in which he has given a perfect "local coloring" to the play, weaving in not only allusions to local scenery, customs, and usages, but also introducing local, provincial words, phrases, and expressions, with a skill that is all the more remarkable, since the poet never visited Switzerland. A large number of them are not given in any German-English dictionary, nor are some of them indeed found in even the largest German dictionaries; many of the expressions are not explained even in the dictionaries of the local dialects. Thus, *zu Berg fahren* means "to take a herd of cattle from the wintering place up to the pasture lands on the mountains as they become green through the advancing summer." *Die Alpe* means in Switzerland "a plot of pasture land high up in the mountains." A large number of other words were traced, including some proper names, in which the influence of the neighboring Italian was shown, upon the formation of provincial terms of endearment, as *Seppi* for "Joseph," from *Giuseppe*. Also the remains of old German influences were pointed out, as in

Kuoni for "Konrad." That Schiller could use these provincialisms so accurately and still so freely and artistically, was owing doubtless to the care with which he studied such works as those of Tschudi, Müller, Schencher, Etterlein, and Ebel upon Swiss history, geography, scenery, customs, and usages, and to his long intimacy in Weimar with his Swiss friend, H. Meyer. It is a curious circumstance that these words and expressions in so classical a work as William Tell should not be found in standard German-English dictionaries. And usually the non-German student thinks that he is reading the purest German, in passages which are provincial and poetic, and are recognized to be so by the Germans themselves.

As the Local Committee had arranged for a reception to be given in the evening, the Association adjourned till 9 o'clock to-morrow morning.

FRIDAY, JULY 17TH—MORNING SESSION.

The first paper read was by Professor C. H. Brigham, of Ann Arbor, Mich., on "The Agaou Language."

This is the dialect of the Jews of Abyssinia, known as the Falasha people. These Falashas differ from other Jews in knowing nothing of Hebrew. They are equally ignorant of Greek and of Arabic. They have had no connection with other Jewish tribes, but have been familiar for ages with the dialects of the people among whom they have lived.

The language of the dominant race in Abyssinia in the early time was the Gheez, a Semitic dialect. This language early became detached from the Cushite or Himyarite. It has some resemblance to the Coptic, particularly in the form of the verb. From the 14th century it has ceased to be a spoken language, and only the learned understand it. The nearest to it of the dialects which have sprung from it is the Tigré or Khassi language. The Amharic, the official language of the land, is also spoken by the Falasha Jews, as well as by the Christians, though it is not used in religious exercises, but only in secular affairs.

The Falashinya, or Agaou dialect, which the Falashas speak in their households, has nothing Semitic in its structure. It is the descendant of the dialect spoken by the Abyssinian people before the invasion of the Semitic race from the other side of the Red Sea. This may be shown by the comparison of the Bogos-Bilen table of numbers from 1 to 10, with the Falasha names of numbers. They are nearly identical. So the common names of the elements, and of the implements of industry and domestic life, have close resemblance in sound to the ancient Bogos speech.

The Grammar of the Falasha language has several peculiarities. It has no article. The feminine gender is marked by adding *ti* or *eti* to the masculine. The plural is formed in five ways: by adding the word *ki*, which means all, as *yir*, "man," *yirki*, "men";—by doubling the word; by changing the final *a* into *t*; by changing an inner letter, as *khoura*, "child," plural *khorta*, "children"; by adding *in*, to express decimal numerals, as *lina*, "two," *linin*, "twenty." The adjective always comes before the substantive. There are three oblique cases, genitive, dative, and accusative. The personal pronouns are sometimes independent, sometimes prefixed to the word to which they belong. There is only one conjugation for all verbs. The participle is shown by the termination *ag*; and

the personal pronoun before the participle implies combined action. The imperative has a double form, affirmative and negative. When two verbs are joined, the first indicates the manner of the action. There are various other ways of verbal modifications. Illustrations of all these positions were given.

The Agaou language belongs to the great family which includes the Egyptian, Berber, Haoussa, the class of tongues sometimes called "Hamitic." It is notable for the abundance of its nasal tones, for the confusion of its liquids, for its contraction of words, and for the change of gutturals into nasals. Its literature is not abundant, consisting mainly of prayers and translations of Scripture.

Professor W. D. Whitney, of Yale College, New Haven, Conn., read the next paper, on "*Φύσει or Θέσει?*"

The ancient Greeks disputed whether the names of things existed *φύσει*, "by nature," or *θέσει*, "by assignment," i. e. by human attribution—whether they were natural or conventional. The same question is sometimes raised and answered anew at the present time; and the answer is apt to be, *φύσει*: perhaps especially on the part of those who affect a philosophic profundity in their treatment of the subject. But if there is truth in that answer, it is very far from being the whole truth. On the contrary, in the most direct and obvious sense, names are certainly *θέσει*. That is to say, the words of all existing languages exist and are used only by convention; they were learned by those who use them; their variety, in relation to any given idea, is as great as that of human languages; they are kept in existence by tradition. There is not a known name in any dialect that has an internal necessary significance, or other than a historical *raison d'être*: even the most obvious onomatopœias are only examples of how human usage has chosen one mode of suggestion rather than another in forming its names: each idea so indicated is in other dialects found expressed by words which possess no such suggestiveness. This is true not only of all existing, but of all recorded speech, and of all that is inferable for pre-historic epochs, or restorable by scientific processes. It only remains disputable whether the very earliest stage of expression, the germ of the after conventional growth, was natural and necessary. Upon this point, opinions may and probably will long remain at variance. The speaker believed, however, that here also the only true and tenable answer is *θέσει*. And this in part because he held that the impulse to communication was the final and direct producer of speech; that there would have been no speech without it. It is not, of course, the whole force, or the grandest of the forces, that combine to the existence of speech. If a stone lie supported at the edge of a precipice, it may continue there for ages without stirring; all the vast cosmical forces of gravity will have no power to set it in motion; but a slight thrust sideways, from some accidental and transient cause, topples it over, and it goes crashing down. Is it the thrust, or gravity, that produces the fall? Either, or both. There would have been no fall without gravity; but gravity would never have resulted in the fall without the thrust. So all the noble endowments of man's nature would never have brought him to language without the added impulse to communication which comes from his social disposition. And names are given to things by him for the satisfaction of this impulse, being made such as conduce to intelligibility; though language as a whole becomes a worthy exponent and instrument of his best powers.

Words, then, in their individuality, exist *θέσει*, and only *θέσει*: but the *θέσις* itself is *φύσει*, if we may include in *φύσις* not only man's natural gifts but also his

natural circumstances. In this sense only, and with these limitations, is it proper to answer *phori* to the question as to the existence of speech.

Mr. John Swinton, of New York, presented a paper on "Linguistic Perspective."

It related to the elements, forces, and scope of the English language. The author showed by statistics that if it continued for another century at the ratio of the growth of the past century, it would then be spoken by as many people as now inhabit the globe. He showed that it was spoken by more people than any other European language; and that it was the only language that was spoken by two great powers (England and the United States). He indulged in a series of speculations concerning his theory, showing how the dominating English dialect was absorbing all local dialects, and discussing other questions of interest.

The Committee to nominate officers for the following year made nominations as follow :

For *President*—Dr. J. Hammond Trumbull, Hartford, Conn.

For *Vice-Presidents*—Professor S. S. Haldeman, University of Pennsylvania, Columbia, Penn., Professor Charles Short, Columbia College, New York.

For *Secretary and Curator*—Professor Samuel Hart, Trinity College, Hartford, Conn.

For *Treasurer*—Professor Albert Harkness, Brown University, Providence, R. I.

For additional members of the *Executive Committee*—

Professor Fisk P. Brewer, University of South Carolina, Columbia, S. C.

Professor Martin L. D'Ooge, University of Michigan, Ann Arbor, Mich.

Professor Edwin S. Joynes, Washington and Lee University, Lexington, Va.

Professor Lewis R. Packard, Yale College, New Haven, Conn.

Professor Edward H. Twining, University of Missouri, Columbia, Mo.

The report was accepted, and the persons therein named were declared elected to the offices to which they were respectively nominated.

The Committee to select the place and the time of the next meeting recommended that the meeting be held at Newport, R. I., on the 13th day of July, 1875, at 3 o'clock P. M.

The report was accepted, and the recommendation of the Committee was adopted.

The Executive Committee were desired to take into consideration the question of holding winter sessions of the Association at places in the southern portion of the United States.

On motion, it was

Resolved, That the members of the Philological Association gratefully acknowledge the kindness and hospitality of the citizens of Hartford, so generously rendered at an inconvenient season; the attentions of the efficient Local Committee; the courtesy of the High School Committee, in giving the free use of their commodious building for the sessions of the Association; and the considerate favor of the railway companies in the return tickets given to the members of the Association.

The minutes of the meeting having been read and approved,

On motion, the Association adjourned.

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1874-5.



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 E. G. Parsons, Byfield, Mass.
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